- Schools did not make full use of the assessment information to identify the strengths and weaknesses of pupils so as to adjust their teaching programmes and strategies. Moreover, teachers seldom gave feedback to pupils to enhance the effectiveness of learning and teaching.
- The physical fitness of senior class pupils was only satisfactory. In order to further develop their physical fitness, schools should open up their sports facilities before school and during recess and provide equipment such as rattan hoops, ropes, shuttlecock etc., for pupils to play with.
- Most schools did not provide pupils with adequate information about current development in sports. Schools were encouraged to inform pupils of the latest sports news and events taken place inside and outside schools.

- Schools should develop a balanced school-based PE curriculum in line with the curriculum reform. The curriculum should emphasise cultivating pupils' generic skills, positive values and attitudes.
- Planning and management of the PE curriculum should be strengthened. At present, the duties of panel heads focus mainly on administration. Greater emphasis should be placed on developing the curriculum leadership of the panel heads and monitoring teaching effectiveness.
- Schools should promote various physical activities and introduce the concepts of "life-style physical activities" to pupils.
- Pupils should be encouraged to make good use of the library resources. Various sports websites could be provided in the schools' website for reference. Teachers could guide pupils to collect learning materials from the Internet so as to enhance learning effectiveness.

# Secondary Schools



# Chinese Language

- Duties within the subject departments were properly allocated and liaison among teachers was close. More than half of the schools inspected enhanced professional exchanges and collaboration among teachers through the organisation of seminars and talks as well as the promotion of peer lesson observation and collaborative lesson planning.
- All the schools encouraged students to take part in subject-related extra-curricular activities or competitions, including the Chinese Week, couplet writing competitions, inter-school choral speaking competitions, reading award schemes and essay-writing competitions.
   Senior form students in some schools formed Chinese clubs and organised cross-subject activities such as cultural studies and projects in collaboration with other subjects. Competitions on using dictionaries were also held to promote the use of reference books.
- Almost all the schools inspected tried out modular learning and teaching in S1 in the current school year to prepare for the implementation of the new curriculum for junior forms in the following school year. Most of the schools adopted the teaching method of combining reading and writing to consolidate students' knowledge of literary forms, writing techniques and rhetoric, as well as to develop their writing skills. To enhance students' learning abilities, guidance on reading strategies was included in the teaching of prescribed texts and extensive reading was promoted to broaden students' horizons and scope of reading. Project recommendation of books through the intranet, and book reviews by parents and students, etc., were organised in individual schools to promote reading among students.
- With regard to using IT in the teaching of Chinese, more than half of the schools inspected had set up a Chinese resource database in the intranet to store examination questions, minutes of meetings and

teaching materials. Some teachers started to develop teaching materials on their own for computer-aided presentation and individual teachers created personal homepages to provide learning materials. Students were asked to collect relevant information, practise writing and exchange ideas on the Internet.

- Teachers put due emphasis on moral education and exerted a subtle influence on students by embedding moral values in the teaching materials.
- Teachers possessed adequate knowledge of the subject and were conscientious in teaching. Lessons were well-prepared and delivered clearly and systematically. Teachers had established a rapport with students. Teachers made good use of the blackboard in their teaching.
- Most students were attentive in class. They were able to follow instructions in carrying out class activities and respond to teachers' questions. They were cooperative, serious about their learning and well-behaved in class. As revealed from their assignments, students could understand what they had learnt. Some students with higher ability could elaborate on the topics fluently and express their thinking and feeling clearly.
- Students were provided with sufficient exercises, including short questions, integrated exercises on linguistic items, dictations, compositions, reading reports and comments on newspaper cuttings. Project learning was organised in a small number of schools. Teachers were conscientious in marking students' assignments with appropriate and concrete feedback on students' strengths and weaknesses. Students were required to make corrections and teachers paid due attention to their corrections.
- The teaching contents were appropriately covered in examination papers. Examinations of senior forms were conducted in the same format as those of public examinations. Frequency of the examinations was suitable. Individual schools designed two papers which included core and optional items to cater for the needs of students with different abilities in the junior forms. Assessments on listening and speaking were introduced in the junior forms of a small number of schools.

- Most of the schools had drawn up yearly development targets and implementation plans of the subject, but there was a lack of evaluation criteria. Teaching progress was mainly reviewed in department meetings; however, the reviews were not thorough enough and findings of the reviews were not used as a basis for revising work plans. The monitoring role of panel heads should be strengthened. The panel heads of about half of the schools inspected failed to get a better understanding of the teaching of the subject through class observations, interviews and inspection of exercise books. There was a need to step up the monitoring of departmental affairs.
- Teachers failed to conduct in-depth discussions and exchanges among themselves on the effectiveness of teaching as well as the learning performance and abilities of students. On remedial teaching, teachers were unable to utilise the assessment information as a basis for revising the teaching programme and improving their teaching strategies.
- The extensive reading scheme had been extended to senior forms in recent years. However, the schools still needed to arouse students' interest in reading and develop their reading habits.
- Most of the schools failed to plan the modular learning and teaching in junior forms as a whole. The panel heads should determine the learning objectives in the curriculum at all levels with the subject teachers. The curriculum should cover the areas of reading, writing, listening and speaking. The sequence of different modules as well as the continuity of the curriculum across different levels should be strengthened.
- A teacher-oriented approach was adopted in most of the lessons observed. Expository methods were used in the delivery of lessons and the questions raised by the teachers were rather simple. Teachers failed to foster students' thinking and communication skills through questioning and class activities, and interaction between teachers and students had yet to be enhanced. Teachers made little use of IT to facilitate students' learning and to enhance their teaching. Teachers' expectations of students were not high enough to promote thinking and self-learning skills.

- Most students were passive in learning and they rarely took the initiative to ask questions or express opinions. Students relied on the teachers. Students' performance comprehension was satisfactory. Their soft voice in recitation and speaking revealed their lack of confidence, and training in speaking needed to be strengthened. Students displayed great differences in writing skills. Colloquial expressions were found in the writing of some students, and no regard was paid to the pruning and organisation of the compositions. Most of the students were able to write about their life experiences. Their scope of writing was rather confined and their abilities in commentary and analysis were weak. There was a lack of full elaboration and strong arguments in students' compositions. Students failed to pay attention to the diction and tone in their practical writings.
- In some of the schools inspected, the examination questions focused on the assessment of students' abilities to recall what they had learnt. More inspiring questions should be provided so as to assess students' abilities in thinking and presentation. Teachers should not provide keys to questions on prescribed texts lest students should rely on teachers for answers.

- The overall planning of modular learning and teaching in junior forms should be strengthened so as to ensure continuity of the curriculum across different levels. On the promotion of reading, the schools should review the existing Chinese Extensive Reading Scheme and enhance the quality and quantity of reading among students at different levels. The subject departments needed to organise a variety of reading activities in collaboration with their school library to arouse students' interest in reading and promote reading in schools.
- To arouse students' initiative in learning, teachers should raise their expectations of students and organise more student-oriented activities such as group discussion to enhance interaction among students and provide them with more opportunities to participate in class activities. Teachers should arouse students' enthusiasm about learning with appropriate encouragement and praise. Training in collaboration and communication skills should also be strengthened.
- To cater for the different learning abilities of students, teachers should fully utilise the information on academic assessment. Teaching

- materials should be designed and teaching strategies formulated in accordance with students' learning needs to enhance the effectiveness of remedial teaching.
- The promotion of IT in teaching was still at a preliminary stage in schools. Specific development plans and promotion strategies should be formulated to render support to teachers by stepping up the development, collecting and sharing of software for teaching. Teachers should be encouraged to apply IT to class teaching. Students should be given the opportunities to collect and analyse information on the Internet for the development of skills in self-learning.

# 3.10

# Chinese Literature

- Literary elements were included in the Chinese Language curriculum for the junior levels in a small number of schools in order to arouse students' interest in the subject and to provide students with basic knowledge.
- Teachers displayed a good mastery of the subject knowledge. They were conscientious in teaching and well prepared for the lessons. The lessons were systematically organised with clear exposition. Teacher-student relationship was good.
- Students were well behaved, cooperative and attentive in class. Their assignments were neat and their presentations were clear. Most S6 and S7 students were able to present their ideas relevant to the topics in writing fluently.
- The variety of exercises provided was adequate and the frequency was appropriate. Teachers were in general conscientious in marking and were able to give concrete feedback to students. They could also follow up students' corrections.
- Apart from summative assessment, continuous assessment was also adopted in most of the schools inspected so as to encourage students to work hard. The format of examinations closely followed those of public examinations. The teaching contents covered in examination papers were appropriate. Clear marking schemes were available for teachers' easy reference.

 A small number of schools were able to develop a subject database in their school intranets to facilitate teaching. Individual teachers made use of the school's homepage to display students' work, which helped to boost students' confidence and interest in learning.

- Coordination of the subject in some of the schools was rather loose.
  Teachers did not properly plan, discuss and review the programme
  plan of the subject. A majority of them did not carry out in-depth and
  concrete discussions and exchanges in respect of students'
  performance and abilities in learning. Moreover, the teaching review
  was not thoroughly conducted.
- The teaching plans of the subject in most of the schools inspected were drawn up without clear teaching objectives of prescribed texts, literary knowledge and essay writing. Neither were there any concrete plans for the training in appreciation of literary works and the organisation of extra-curricular activities.
- A teacher-oriented approach was adopted in most of the lessons observed. Interactions and discussions between teachers and students and among students were inadequate. Questions posed by teachers were largely simple and direct, and failed to stimulate thinking and effectively develop students' analytical thinking. Some teachers could not make use of the prescribed texts or literary appreciation exercises in the teaching of literary knowledge to help students master and apply what they had learnt to enhance their skills in analysis and commentary.
- Students were passive in their learning. They failed to make use of various learning strategies such as lesson preparation, note-taking and leisure reading to enhance their learning effectiveness. Most students lacked confidence in learning. Their recitation and presentation skills needed enhancing. Students' performance in literary appreciation and analysis was unsatisfactory as they were not able to apply what they had learnt or to elaborate on their ideas. There was generally a lack of depth in ideas and creativity in essay writing by S6 and S7 students.
- Some teachers failed to design and tailor the assignments according to students' abilities and the teaching objectives in an effort to reinforce students' learning and enhance their skills in analysis,

commentary and presentation.

• In some of the schools inspected, tests were frequent and questions in past public examination papers were widely used in internal assessment. Teachers should carry out comprehensive review and adaptation in line with the teaching objectives and students' learning abilities. The level of difficulty of the examination papers in a small number of schools was inappropriate. The questions on literary appreciation mainly focused on assessing students' comprehension power rather than skills in appreciation and analysis.

#### Priorities for Action

- Teachers should critically review students' learning performance and abilities so as to adjust their teaching strategies and enhance the effectiveness of learning and teaching. Professional sharing could be achieved by active participation in training courses or seminars and through peer lesson observation.
- Clear and specific teaching plans, including teaching objectives of prescribed texts, literary knowledge and writing, especially the exercises on literary work appreciation, should be formulated to facilitate teaching and coordination among levels.
- Teachers should provide students with more opportunities to participate in class activities, encourage them to learn on their own, express their ideas, as well as develop their presentation, analysis, appreciation, commentary and self-learning skills. Teachers' questioning techniques should be improved. They could pose higher-order questions in line with students' abilities and responses, as well as follow up and give them guidance so as to enhance their skills in thinking and analysis. Moreover, more training in recitation skills should be given to students, so that they can appreciate the exquisite qualities of the literary works.
- Teachers should encourage students to read more literary works to equip themselves and to enrich their imagination in order to help enhance their analysis and appreciation of literary works and to improve their writing skills.
- A variety of assignments could be devised to strengthen students' literary appreciation skills and arouse their learning interests.
   Teachers could consider introducing project work on literature and

adopting IT in learning so as to promote students' critical thinking, organisation, and presentation skills as well as their creativity.



# Putonghua

- Teaching plans were drawn up with clear teaching objectives. One of the schools inspected had integrated the teaching of Putonghua with Computer Studies to enable students to acquire the skills of using the computer equipment to support their learning. Such a practice had achieved desirable effects.
- Besides organising extra-curricular activities to enhance students' interest in learning Putonghua, the schools also encouraged students to take part in the Hong Kong Schools Speech Festival, in which they got satisfactory achievements.
- Schools could make good use of the subject grant for Putonghua and provide sufficient resources for the development of the subject. Most of the schools inspected had allocated additional resources for organising interest classes in Putonghua outside school hours to provide students with more opportunities for learning the subject.
- Schools attached importance to the professional development of the subject teachers. Professional development programmes for the subject teachers had been worked out, and teachers were encouraged to conduct more professional exchanges. Most of the teachers spoke fluent Putonghua with an accurate pronunciation and a natural tone.
- Teachers were conscientious in class teaching and lessons were well prepared. Some of the teachers were skilful in using IT software (Presentation Software) and equipment in addition to the audio equipment to supplement their teaching. Positive reinforcement was used to bolster up students' confidence in learning. Class management skills were good. Some teachers were able to organise a variety of learning activities to enhance students' interest in learning. They were able to use the language in questioning and in giving presentations and instructions. Most teachers were proficient in using the classroom language.
- Students were well-behaved in class. They could understand teachers'

instructions and presentations and were responsive to teachers' questions. Their performance in recitation was satisfactory. Students of one school inspected were capable of using the audio equipment in the multimedia rooms to supplement their learning.

 Most teachers were able to work out assessment items in accordance with the teaching objectives and contents of the subject. The assessment was quite comprehensive with appropriate distribution of marks.

- While teachers tailored their teaching materials with regard to the lesson time and students' learning ability, there was a lack of a comprehensive set of tailoring principles as emphasis was largely placed on learning the Han Yu Pinyin system. There were also no specific learning targets set for the listening and speaking skills. Besides, the coverage of the review was not comprehensive enough. Nor were there any suggestions for improvement after the review.
- Most teachers taught the subject by way of asking questions and students were instructed to do recitation as exercises. There were insufficient group activities to provide students with more opportunities to speak and communicate in Putonghua and to create a more lively learning environment. Most teachers conducted practices on listening and speaking based on the materials provided in the teaching kit. Monosyllabic and bisyllabic words were used as a drill in learning the Pinyin. Oral practices mainly focused on sentence patterns. Teachers failed to adjust their teaching in accordance with the progress of students and they could not use teaching materials flexibly to meet students' learning needs.
- Students were rather passive in class. Most of them were able to give only simple responses in Putonghua. Their skills and confidence in speaking Putonghua needed to be strengthened.
- In assessing students' listening comprehension, the schools put more emphasis on textual comprehension, while assessments in other areas like connotation distinction, textual summary and generalisation were inadequate. Moreover, most schools did not have concrete assessment criteria for oral tests.

- Putonghua was offered at the junior secondary level to tie in with the policy of Biliteracy and Trilingualism. Schools should offer students more time or opportunities for learning the subject through the formal curriculum and co-curricular activities.
- In class teaching, teachers should employ the teaching materials flexibly. Apart from the learning of phonemes, textual recitation and syntax practices, teachers could design oral practice exercises in the form of situational dialogues closely related to students' daily life and develop students' communication skills by doing simple conversation based on their acquired knowledge and life experiences. Teachers could also organise more group activities to provide more Putonghua speaking opportunities for the promotion of interflow among students and the development of a more lively learning environment.
- A variety of extra-curricular activities on Putonghua should be organised to promote students' interest in learning. Apart from recitation and story-telling competitions, drama, film shows and broadcasting activities could also be held.
- In the area of curriculum planning and development, the schools should set out clear requirements for students' listening and speaking skills on top of learning the Han Yu Pinyin system in Putonghua. In respect of curriculum review, teachers should conduct a systematic review of such areas as the teaching content, teaching methodology, assessment items and methods based on the requirements of the subject so as to work out follow-up plans to enhance the quality of learning and teaching.

# 3.12 English

- In about half of the schools inspected, regular peer lesson observations and exercise book inspections were in place for professional development purposes as well as to serve as a means to ensure effective delivery of the curriculum.
- Almost all the schools inspected entered students for events in the Hong Kong Schools Speech Festival. A few schools inspected entered

students for competitions and other English related activities organised by outside agencies to encourage students to practise using the language outside the classroom and to develop their confidence in using the language.

- A wide range of English related extra-curricular activities were organised in a majority of the schools inspected to give students added exposure to the language and to encourage them to use the language in meaningful contexts. Such activities also had the effect of inducing an English atmosphere in the school which in turn favoured students' learning of the language.
- The schemes of work for all levels covered the four macro skills which were adequately integrated to facilitate the learning of the subject. The schemes of work were generally effectively implemented in the schools inspected.
- Some of the inspection reports made the observation that the Native-speaking English Teachers (NETs) were put to good use. Apart from their regular teaching duties, they also served as resource persons, teachers-in-charge of English related activities and support programmes, and contributed to the staff development of the English panel in their schools.
- Teachers were on the whole well prepared for lessons. Lesson objectives were in most cases clear, and explanations were in general systematic and lucid. In more than half of the schools inspected, teachers were able to establish a sense of rapport with the students. Most teachers displayed a comfortable command of the language and were adept at classroom management.
- Most students were attentive in class and were able to complete learning tasks as required. Some students showed a good mastery of the language skills. Good IT skills were also observed in the project work of some students.
- There were a good variety of homework assignments provided for students. More than half of the schools inspected made use of project work to develop students' generic skills.
- English corners or English rooms, stocked with multi-media English learning materials, were in place in most schools to lend further support to students in the learning of the language.

- While regular panel meetings were held in most of the schools inspected, quality time should be set aside for teachers to discuss in depth issues related to teaching strategies and matters related to student learning. The practice of allotting common free periods for teachers, which was observed in a small number of the schools inspected, should be promoted.
- The role of level coordinators should be further strengthened so that they could, in collaboration with the panel head, engage in curriculum planning and adaptation, implement curriculum initiatives and promote professional development.
- In nearly all the schools inspected, remedial programmes were in place to cater for the abilities of the less able students. However, better coordination within the panel with regard to curriculum adaptation was needed to bring about the desired learning outcomes.
- While some students displayed a strong interest in reading and participated actively in the Extensive Reading Scheme, reading among students in general could be strengthened.
- In about half of the schools inspected, teaching tended to be textbook-bound and teacher-led. Opportunities for meaningful practice of the language were therefore inadequate. In more than half of the schools inspected, teachers had low expectations of students resulting in the more able students not being suitably challenged. The effective use of IT in class teaching was observed in less than half of the schools inspected.
- In more than half of the schools inspected, students were soft spoken and lacked confidence to speak up in class or to use the language in meaningful contexts. They rarely took the initiative to raise questions or seek help from the teacher.
- While assignments were in general well marked, specific and constructive feedback on students' performance to help students improve was lacking in a number of schools inspected.
- In more than half of the schools inspected, language usage items in the junior form examination papers were not adequately contextualised.

- Reading could be strengthened in a number of schools inspected. Schools may consider assigning daily designated reading time slots for silent reading to develop a reading habit in students. Besides extensive reading schemes, reading clubs, book sharing sessions or book fairs can also be organised to promote reading among students. A wider variety of post-reading tasks, besides writing book reports, can be introduced to enhance students' motivation to read.
- Despite the fact that remedial programmes were launched for the less able students in nearly all the schools inspected, it was observed that the programmes should be more effectively run so that the resources allocated could be better utilised and students in need of remedial measures truly taken care of. There should be better coordination within the panel regarding the adaptation of the remedial curriculum at various levels which may call for a rigorous review of the teaching strategies, classroom activities and the use of teaching aids to help students learn, consolidate their knowledge, develop their generic skills and enhance the effectiveness of learning. To cater for the needs of the more able students, varied learning experiences, which encourage risk taking and exploration, should be devised. More demanding learning tasks, preferably of an interactive nature, should be provided to stretch the capabilities of these students.
- The level of use of IT in English language teaching was relatively low. The use of IT should be integrated into the curriculum through various means. Working units within the panel can be formed to pool expertise in selecting, adapting and using appropriate IT-based resources in everyday teaching. A subject webpage can be created for the dissemination of information regarding English language teaching and learning for teachers and students. Besides, a bank of software can be developed to facilitate teachers' use of IT in the delivery of the curriculum. Students should be encouraged to use IT in presentations, make use of the Internet to acquire information and to communicate and share information electronically with teachers and their peers.

# 3.13 Mathematics

- In most of the schools inspected, coordination within the subject panels was satisfactory. The subject panels prepared well-defined guidelines for teachers' reference, such as homework guidelines and assessment guidelines. There was clear distribution of duties among teachers in the subject panels and there were coordinators at each level. Such arrangements facilitated the coordination and promotion of the work of the subject panels.
- A variety of extra-curricular activities were organised to supplement the formal Mathematics curriculum and to enhance students' interest in Mathematics in about half of the schools inspected. These activities included games, contests and publication of Mathematics periodicals. About one third of the schools nominated students to participate in inter-school activities like the Hong Kong Mathematics Olympiad and the Hong Kong Preliminary Selection Contest for the International Mathematical Olympiad. Such participation widened students' horizons.
- A majority of the teachers prepared their lessons well. There were well-defined teaching points with clear and systematic exposition and instructions. Teachers had sufficient mastery of the subject matter. They were devoted, friendly and serious in their teaching. Teacher-student relationship and class discipline were good.
- A majority of the students were interested in the subject and were willing to participate in extra-curricular activities. They were serious in their learning, attentive, well behaved in class and followed teachers' instructions in carrying out learning activities. Students demonstrated a good mastery of basic mathematics concepts and computational skills.
- Teachers in general marked homework assignments seriously and could point out students' mistakes and follow-up on students' corrections.
- A majority of the schools also had clear assessment policies and used continuous assessment to monitor students' learning progress. The

coverage of test/examination papers was sufficient to evaluate students' learning in different Dimensions. The length and level of difficulty of test/examination papers were appropriate. Marking schemes were generally detailed and concrete with fair distribution of marks.

- Some schools had not established a mechanism to monitor the implementation of the curriculum. Only a small number of schools had put in place the practices of peer lesson observation and scrutiny of students' work to monitor the implementation of the curriculum and the quality of teaching. Besides, the review of curriculum was not comprehensive enough. Many schools mainly evaluated students' results in tests/examinations without devising any concrete measures to raise students' interest in learning and enhance students' learning performance by addressing their weaknesses.
- Performance of schools in promoting the use of IT in teaching varied.
  Many schools already had concrete implementation plans. Half of
  these schools implemented their plans such as building banks of IT
  resource materials, organising sharing sessions among teachers and
  developing subject webpages for students to carry out interactive
  learning. However, other schools had not yet formulated any concrete
  implementation plans to cope with this new trend in learning and
  teaching.
- Though more than half of the schools inspected showed concern about students' learning differences, and used various programmes such as remedial teaching, tutorial classes and extra lessons to support the low achievers, a small proportion of schools had not implemented any adequate support programmes for the low achieving students. A small proportion of schools ran enhancement programmes to further stretch the potential of the mathematically more able students. However, schools still needed to strengthen the planning, coordination and monitoring of these programmes so that they could fully meet individual needs through adaptation of the curriculum and teaching strategies.
- In some schools, teaching was mainly based on teachers' exposition and could not stimulate students' learning interest and develop their generic skills. Teacher-student and student-student interactions were not sufficient. It was advisable for teachers to devise a variety of

learning activities to enhance classroom interactions and use teaching aids and IT more widely to arouse students' learning interest. In more than half of the inspected schools, teachers' questions tended to be of low level. They were not conducive to students' reasoning and could not develop students' problem-solving skills.

- Professional exchanges in a majority of the schools needed to be strengthened. Teachers seldom had thorough discussions and sharing on teaching strategies, the implementation of the new mathematics curriculum and current trend of teaching. Less than half of the schools had peer lesson observations and only a small proportion of schools had collaborative lesson preparation.
- Students in a majority of the schools were passive in learning, they seldom took the initiative to raise questions or clarify their doubts. They also could not adopt a variety of learning strategies to enhance the learning effectiveness. Furthermore, students' capability in mastering abstract concepts, using accurate mathematical language to express ideas, inquiring and problem-solving needed to be strengthened.
- Homework assignments in many schools were of the traditional types and lacked variety. The exercises set by some schools tended to be on mechanical drilling. Training of students' reasoning and problem-solving skills needed to be strengthened. Besides, the frequency of homework assignments in some schools was low and the purpose of consolidating learning through homework assignments could not be fully achieved.
- The stock of library books in some schools was not sufficient in both quantity and variety. Schools should procure more recreational mathematics library books to stimulate students' reading. Furthermore, students rarely borrowed subject-related reading materials. Schools should encourage students to do more reading outside class. Schools also needed to acquire more teaching resources to support the teaching of mathematics, such as references books for teachers, teaching aids, software and CD-ROMs.

#### Priorities for Action

 Schools should strengthen the professional exchanges among teachers. To enhance the quality of teaching, teachers should be encouraged to have more thorough discussions and sharing on learning and teaching, in particular, on the implementation of the new mathematics curriculum and effective use of IT in teaching the subject.

- It is advisable for teachers to adopt a greater variety of learning activities to strengthen classroom interaction and develop students' generic skills. Besides, teaching aids and IT could be used more extensively to stimulate students' interest in learning. Teachers should refine the questioning techniques, guide students to reason and develop their communication and problem-solving skills.
- Schools should strengthen the support programmes for students of different learning abilities by adapting the school curriculum and teaching strategies to fully cater for the needs of different students.
- When setting homework assignments, schools should avoid excessive drilling type problems and increase the variety of exercises, such as project work and open-ended questions so as to develop students' inquiring and problem-solving skills as well as raising their interest in learning.

# 3.14 Physics

- Peer lesson observations within the subject panel were common and accepted by teachers as a means to exchange professional knowledge and strengthen teaching performance in the subject.
- In writing the teaching plan of the subject, most schools gave due attention to incorporate IT elements to facilitate learning and teaching. Nearly half of the teachers made use of IT resources effectively and efficiently for student learning. Other than the use of computer simulation and virtual experiments for illustration of abstract concepts, teachers in a few schools made good attempt to encourage students to communicate with others and disseminate their project work on the Internet and school intranet.
- Most teachers were well experienced and had a good grasp of subject knowledge. They showed good demonstration skills in the lessons. Most of the teachers of the EMI schools were capable of using English fluently to conduct their lessons. Good learning atmosphere was

cultivated in more than half of the lessons observed.

- Most students were receptive, well behaved in the classroom and the majority of them could follow teachers' instructions very well. Some students demonstrated good self-learning skills. They did their assignments neatly and tidily. The quality of their work was good. In doing the project work of the subject, most students showed interest in using IT to present their work.
- Most schools had formulated clear guidelines on homework, and the setting and marking of the examination papers. The majority of homework assignments were properly marked. Examination papers were also properly set and accompanied with detailed marking schemes in most schools. The coverage, variety of items and level of difficulty of the examination papers were appropriate.
- Most Physics laboratories were properly managed. Equipment was sufficient and also properly stored. Inventory records were clear and up-dated. Stock checks were conducted regularly in nearly all the schools inspected. Recently, most of the Physics laboratories had been networked and equipped with multimedia facilities like visualisers, computers, LCD projectors and related educational software, fostering the use of IT in teaching the subject.
- Clear guidelines on the safety measures and precautions on the use of Physics laboratories were formulated. The radioactive sources were properly stored in most schools. Related safety measures and precautions were also compiled and observed. More than half of the schools had regularly conducted laboratory safety check. Safety regulations were strictly observed to create a safe learning environment for students.

- Insufficient subject-related extra-curricular activities were organised to broaden students' learning experience in the subject. Very few students were active in participating in these activities.
- Teaching was mostly teacher-centred and expository. Teachers in more than half of the schools did not organise sufficient activities to stimulate students' thinking, and to help students construct and consolidate concepts. Few questions were raised to stimulate students' thinking. More than half of the teachers did not praise the

- students for their positive responses. Neither were students duly encouraged to participate in discussions and learning activities.
- Inadequate opportunities were provided for students to enhance their practical skills and acquire science processing skills such as data handling and interpretation of experimental results. More than half of the teachers did not adapt their teaching to cater for student differences.
- Most students were passive in learning the subject. They seldom took
  the initiative to raise questions in classroom. Very few students
  demonstrated an inquiring attitude in learning the subject. More than
  half of the students did not make use of different learning strategies
  to enhance their learning.
- Only a few schools inspected had arranged a variety of assignments for the students to acquire various skills emphasised in the subject. The variety of assignment should be enriched to include model making, reading, information collecting and project work etc., to strengthen students' self-learning, problem-solving and critical thinking abilities.
- More than half of the schools did not make use of the assessment data to improve student learning. Effort was mainly made in reporting the results of public examinations and comparing the changes in passing, credit and distinction percentages. Other than the evaluation of subject knowledge acquired by the students, insufficient attention was paid to evaluating students' performance in the domains of skills and attitudes emphasised in the subject. The strengths and weaknesses of the students in homework assignments and examinations should be identified and made full use of to adjust the teaching strategies so as to enhance students' learning.
- Only a small number of the schools had regularly conducted evacuation drills for laboratory accidents. Attention should also be paid to the management of the use of lasers and school should ensure that wipe test for radioactive sources was conducted half-yearly.
- Library resources of the subject were not fully utilised to enhance students' learning. More interesting reading materials of the subject including magazines and articles should be acquired for promoting reading in the subject.

- An interactive classroom atmosphere should be promoted to enhance students' learning. Teachers should arrange a greater variety of interactive learning activities in their teaching. Group discussion, presentation, demonstration, experiment and the use of IT for interactive learning are appropriate means for enhancing students' participation and effective learning.
- Students' learning skills should be enhanced. More opportunities should be provided for students to master different learning strategies and to make full use of them in their learning. Various learning activities such as reading, scientific investigation, collaborative learning, information searching and processing are effective to help students develop self-learning skills and positive learning attitude.
- More subject-related extra-curricular activities, both inside and outside schools should be organised and students' participation should also be encouraged so as to broaden their learning experiences and cultivate their interest in learning the subject.

# 3.15 Chemistry

- Schools provided adequate learning experiences for students to acquire the knowledge and understanding in Chemistry as well as to foster their awareness of the interconnection between science, technology and society using daily life examples and applications. Project work was effectively arranged to help enhance generic skills and build knowledge. Most subject departments were properly managed to facilitate curriculum implementation.
- Almost all the teachers were subject trained. They demonstrated a good grasp of the subject matter and were well acquainted with the aims and objectives of the curriculum. The lessons observed were well organised and managed with clear learning objectives. Most teachers used information technology effectively to enhance learning and teaching. Laboratory safety was properly attended to during the laboratory lessons.
- Most students were generally interested in the subject. They were well

behaved, attentive and enthusiastic about practical activities. Those high-achieving students demonstrated good critical thinking and problem-solving abilities during science enquiry tasks.

- Continuous assessment was conducted through homework, practical work and oral presentation to enhance students' learning outcomes. Appropriate feedback helped students improve their work.
- There were adequate teaching resources including laboratory facilities and equipment, teaching aids and IT facilities to effectively support learning and teaching. Both laboratory management and laboratory safety were maintained at a high standard.

- Only a few schools had established effective self-evaluation measures to review the effectiveness of learning and teaching, which could help bring about improvement in students' learning. Improvement measures suggested were not properly followed.
- In some schools, the subject curriculum was not built on students' prior knowledge and skills to allow a smooth transition from the junior form science curriculum. Moreover, some schools which started teaching the subject in S3 used to place excessive emphasis on theories without addressing students' needs and interests.
- Schools generally lacked a variety of extra-curricular activities to arouse students' learning interest and widen their learning experiences.
- In the lessons where ineffective teaching was observed, there was a lack of opportunities for students to learn interactively and develop the skills, confidence and attitude needed to study effectively on their own. Similarly, in the ineffective laboratory lessons observed, too much time was spent on description of experimental procedures at the expense of science thinking skills like analysis and interpretation of data that served to develop students' learning capacity.
- Students could not take an active role in learning or improving their own learning by means of a variety of learning strategies. Furthermore, students' science literacy skills and creativity needed to be further strengthened.

- Assignments were usually adopted from textbooks alone, which were limited in variety. These assignments could not effectively enhance students' generic skills or help foster an active learning attitude.
- Library books on the subject were always lacking in quantity and variety. Moreover, limited attention was given to enhance students' learning by reading.

- Teachers should adopt effective teaching strategies to enable students
  to take control of their own learning using different learning strategies
  and to become active learners. For instance, effective questioning
  should be used to facilitate the construction of knowledge by students,
  and laboratory activities focusing on scientific enquiry should be
  arranged to develop students' scientific thinking skills.
- The subject departments should further enhance their self-evaluation measures to bring about continuous improvement. For instance, success criteria derived from learning targets should be developed. Moreover, improvement measures suggested should be properly followed and monitored.
- Due consideration should be given to students' prior knowledge and skills when designing the subject curriculum. Moreover, schools should arrange a variety of extra-curricular activities for students and promote reading to help widen students' horizon.
- A variety of assignments should be arranged for students to enhance their generic skills and cultivate a positive learning attitude.

# 3.16

#### Biology

#### Key Strengths

• In a majority of the subject panels, the overall management and coordination was good and effective. Teachers' relationship was on the whole good. Teachers of some schools were enthusiastic about using Information Technology (IT) in their teaching, and they made good use of the intranet to set up resource banks for sharing their ideas and information with other teachers and students. Their efforts

made in this respect were commendable.

- In most of the schools, different kinds of extra-curricular activities were organised for students by the Biology Society, the Conservancy Club, the Health Education Group and Biology teachers. Such activities included Biology Day, visits, field trips, tree planting, etc., which could arouse students' interest in the subject and enrich their learning experiences.
- Teachers were experienced and equipped with sufficient subject knowledge. Lessons were generally well prepared with clear objectives. In general, teachers could organise topic-related group experiments for students to learn through scientific investigations. Most of them could also use teaching aids and IT effectively to facilitate teaching.
- Students were well disciplined and attentive. They were able to grasp the essence of the lessons and follow safety rules when conducting experiments during laboratory periods. Senior form students were good at making biology drawings and writing up laboratory reports, and they showed mastery of proper laboratory skills. Students in a number of schools were capable of using IT to collect and analyse data, write up reports and organise presentations.
- A variety of assignments were given to students in some schools to consolidate learning. Some teachers also assigned students book reviews, projects, and newspaper commentaries to further develop their generic skills. Most of the teachers marked assignments carefully and properly pointed out mistakes made by students.
- The management of the Biology laboratories was good. The facilities and equipment of these laboratories were sufficient and properly maintained to support learning and teaching. In some laboratories, computer facilities and multi-media projectors had been installed to facilitate the use of IT in teaching. The laboratory technicians were conscientious and rendered adequate support to the learning and teaching of the subject.

# Areas for Improvement

• In general, the subject panels had set too many objectives in their annual programme plans. In formulating implementation plans, key issues should be selected in accordance with the priorities for development. Besides, the plans should include appropriate

evaluation methods and success criteria in order to measure whether the objectives set were achieved.

- The collaborative culture and teachers' professional exchange within the panels needed further strengthening. A closer link could be forged between peer lesson observation and collaborative lesson preparation to promote sharing of teaching experiences among teachers and to enhance the quality of teaching.
- The S3 curriculum of some schools placed undue emphasis on the Hong Kong Certificate of Education Examination syllabus. Teachers should adapt the curriculum to cater for the needs, interests and abilities of the students.
- Class teaching was mostly teacher-centred with very few activities engaging students in active learning observed. Questioning by teachers should be strengthened to stimulate students' thinking and to encourage them to express their ideas. Interaction between teacher and students, as well as that among students themselves, was inadequate.
- Most of the junior form students were weak in making biological drawings and using laboratory skills. Besides, students were passive and seldom asked questions during lessons.
- Teachers should make good use of assessment information to better understand the learning progress of the students and to devise appropriate teaching plans and strategies to improve the effectiveness of teaching. Moreover, teachers should provide students with constructive feedback on their assignments to help them improve.
- The subject panels should formulate plans to encourage students to make use of the subject-related reference books in the library and to develop their reading habit.

#### Priorities for Action

- In formulating the annual programme plan, the subject panels should set their long-term and short-term goals with reference to the developmental needs of the school and the subject. Implementation plans can then be devised.
- The subject panels should further strengthen the collaborative culture

- and professional exchange among teachers to improve the quality of teaching.
- Besides lecturing, teachers should adopt other suitable teaching methods, and arrange appropriate learning activities in class. They should use more stimulating questions when teaching, and encourage their students to take an active part in discussions.



#### Science

- The teaching plans of most of the schools had clear objectives and elaborate contents, with sufficient coverage on practical activities including demonstrations and student experiments. IT resources such as CD-ROMs, websites for reference and video clips of ETV programmes were elaborated in some of the teaching plans. About half of the schools heeded the suggestion of the Curriculum Development Committee by incorporating extension topics in the syllabuses of S1 and S2 levels to cater for the needs of students who were either more capable or demonstrated greater interest in Science.
- Most schools organised science-related extra-curricular activities effectively through the Science Club. Talks on special themes, experiments, exhibitions, competitions and visits were usually arranged for free participation by students.
- Most teachers had sufficient subject knowledge and a good grasp of the pedagogy. They instructed and explained clearly in class. Sufficient group experiments were arranged for students to carry out scientific investigation. Most teachers had made good use of IT in teaching. Realia, models, specimens, toys or photographs were employed by many teachers for illustration.
- Most of the students showed interest in learning Science. They were attentive in class, eager to participate in the learning activities and responsive to teachers' questions. They could collaborate well during group experiments and abide by the general rules of the laboratory. In classes with Chinese as the medium of instruction, students could usually substantiate their answers with arguments of greater depth and breadth, giving rise to better teacher-student interaction and more lively classroom atmosphere.

- Most teachers required students to complete the follow-up exercises in the workbooks or worksheets as homework. Besides, other activities such as reading newspaper cutting, information search, building models and doing science projects were designed by some teachers to consolidate students' learning. Most students completed their homework conscientiously.
- Science laboratories were generally well-equipped and properly maintained, with sufficient teaching aids, instruments and apparatus available for teaching and learning purposes. Nearly all Science laboratories inspected were networked to the school intranet and some of the laboratories were equipped with fixed LCD projectors or data-loggers, facilitating the use of IT in teaching the subject.
- Most of the schools gave due attention to laboratory safety. Safety inspections of the Science laboratory were regularly conducted. Most teachers discussed laboratory safety with their students at the beginning of each school year. Teachers of some schools arranged evacuation drills from the Science laboratory for all students annually.

- For most of the schools inspected, evaluation methods were stipulated in the annual programme plans but success criteria were usually not clearly specified.
- Instead of adopting the Science Curriculum recommended by the Curriculum Development Council, many schools selected topics solely from the S4 and S5 Physics, Chemistry and Biology syllabuses of the Hong Kong Certificate of Education Examination for teaching students in S3. The contents were in general too narrow in scope and too difficult for the less able students.
- A majority of the teachers seldom arranged activities for students to discuss and present answers in groups. There was insufficient attention on students with low motivation and ability in learning the subject. Most of the teachers had not yet acquired the habit of praising and reinforcing the good work and behaviour of the students.
- Some teachers did not provide sufficient guidelines when they assigned projects to their students. Objective assessment criteria on projects were usually lacking. There was insufficient feedback to students in marking.

- Many examination papers emphasised recall of facts and textbook materials. Fill-in-the-blanks and true/false questions still dominated the examination papers of some schools. Questions that required higher-order thinking were insufficient.
- The reference materials gathered and uploaded by teachers to the school intranet for sharing usually lacked comprehensive coverage and proper organisation. In some of the schools, library books were either insufficient in quantity or outdated. The reading culture had yet to be improved among students.

- Instead of selecting topics from the S4 & S5 Physics, Chemistry and Biology syllabuses of the Hong Kong Certificate of Education Examination, schools should adopt the Science Curriculum recommended by the Curriculum Development Council for teaching students in S3.
- More questions that required higher-order thinking such as analysing and problem-solving should be incorporated in test/examination papers to assess the progress in student learning.
- The annual programme plan of the subject should align with the school's annual plan. Success criteria for all implementation plans should be more comprehensively and clearly spelt out.

# 3.18 Computer

(Computer subjects include Computer Literacy, Computer Studies, Computer Applications.)

- S1-S3 Computer Literacy and S4-S5 Computer Studies were offered in nearly all the schools inspected. Most of them extended students' learning experiences to the sixth form by offering the AS-level Computer Applications.
- Most schools made use of the flexibility provided in the computer education curriculum for the junior secondary level to design and implement a curriculum to suit students' needs and to meet the development of IT. Apart from computer fundamentals and office

application software, the inclusion of graphic package and webpage design software in the curriculum had effectively promoted students' interest in learning and kept them abreast of the rapid advances in IT.

- More and more schools encouraged their students to participate in inter-school competitions to broaden their views on advanced IT developments. About half of the schools had won prizes. Students showed good performance particularly in webpage design competitions.
- Teachers were mostly professional and knowledgeable in computer education and IT development. Most of the teachers prepared their lessons well and explained relevant concepts clearly. They made good use of the teaching aids and resources available in the computer rooms in their lessons. Some schools had set up a database of teaching resources in the school intranet for use by teachers and students.
- To cater for students' individual learning difficulties, nearly all schools inspected had a split-class arrangement or had two teachers more effectively taking care of the same class in S1-S5.
- Most students were well behaved in class. They were interested in the learning of the subject, particularly in practical work where they mastered the basic techniques in manipulating the Windows environment and demonstrated good IT application skills. Students in some schools used to e-mail their assignments to teachers and receive feedback through the schools' intranet.
- With the provision of adequate and more sophisticated IT facilities, most schools were equipped with two computer rooms for class teaching. Multi-media Learning Centre and IT Learning Centre were sometimes set available for learning and teaching. Almost all schools opened their computer rooms for students during recess and after school hours.
- Schools had formulated clear assessment guidelines. Many of them used appropriate continuous assessment to assess the learning progress of students at the junior secondary level.

## Areas for Improvement

- Sharing and discussion on the difficulties experienced in learning and teaching aspects were inadequate in formal panel meetings and subsequently improvement on these areas was not made. Professional exchanges and experience sharing amongst teachers should be strengthened to improve the effectiveness of learning and teaching.
- Mixed code teaching was observed in some schools which had adopted English as the medium of instruction. This had adversely affected students' learning of Computer subjects in English.
- Senior form students were passive and not motivated in learning theoretical concepts and Pascal programming. Teaching on these topics was rather textbook-bound. It would be helpful in arousing students' interest in learning and helping them gain better mastery of programming skills if more interesting and attractive themes on daily life examples could be designed for programming tasks. Students should also be encouraged to prepare lessons by searching information on the Internet.
- An appropriate amount of library books had been acquired in most school libraries. Yet students had not fully utilised these books to enhance their subject knowledge. Through relevant learning activities such as project work, students could be encouraged to make better use of the library resources to enhance their subject knowledge and support self-learning.
- Only a few schools made full use of the school intranet to facilitate students' self-learning at home. Setting up of the school intranet with the creation of student folders for keeping assignments and feedback from teachers would further enhance students' learning through the Internet.

#### Priorities for Action

 To enhance the effectiveness of learning and teaching, formal sharing of experiences in learning and teaching aspects by teachers has to be strengthened. Information collected from assessment of students' performance and its analysis can be fully utilised to modify teaching plans.

- More interesting reference books of the subject should be procured and relevant learning activities should be designed to promote students' interest in reading and self-learning.
- Schools should make full use of the school intranet to facilitate student learning through such means as uploading more teaching materials in the intranet, creating folders for students for keeping assignments and feedback from teachers so that communication between students and teachers would be strengthened.
- Schools should review the choice of medium of instruction to suit students' learning ability. Schools should ensure that the medium of instruction chosen is educationally beneficial to their students and mixed-code teaching should be discouraged.

# 3.19 Chinese History

- More than half of the schools designed relevant worksheets and software to facilitate teaching. This helped foster better curriculum development of the subject. Most of the schools developed their own web-based data banks so as to enrich teaching resources and facilitate co-ordination within the subject departments.
- A majority of the schools made good use of external resources to organise visits to historical trails or exhibitions for students. This helped enhance students' interests and knowledge of the subject. Some of the schools also encouraged students to participate in inter-school competitions so as to broaden their learning experiences.
- Most of the teachers could present their lessons clearly and systematically, and there was good use of IT to facilitate the teaching of time sequence, maps and pictorial sources. Some teachers made use of analogies and daily examples for illustration of historical concepts, thus helped stretch students' imagination and comprehension ability.
- Students were co-operative in class and they followed teachers' instructions. Some students were willing to answer teachers' questions or express their views. They showed good memories and comprehension ability. S6-S7 students' attitude towards learning was

- positive. They were very attentive and could actively participate in group activities.
- In most of the schools, appropriate assessment methods including continuous assessment were used. Data-response questions set in the senior secondary examination papers were adequate and in line with teaching objectives and the new HKCEE requirements that emphasised analytical thinking.

- In-depth review on the effectiveness of learning and teaching was not evident in most schools. Follow-up plans for tackling teaching problems were not properly drawn up. Discussion and sharing on curriculum design, teaching methods and use of teaching resources were not thorough enough and teachers seldom made use of the assessment results to facilitate improvement of teaching strategies.
- In most of the schools, junior secondary teaching plans did not include concrete objectives and strategies for the development of learning ability. Chinese History teachers of junior forms were mostly non-subject-trained. Some of them did not fully grasp the current curriculum development and teaching strategies to promote the learning of the subject. Professional training and teaching support needed to be strengthened.
- In most of the lessons observed, teachers placed much emphasis on imparting factual knowledge. Training in analytical power and critical thinking skills was considered inadequate. Questioning techniques and use of the blackboard of some teachers also needed improvement. Teachers could pose higher-order questions in the light of students' abilities, appropriately follow up students' responses and initiate further discussion. Besides, teachers could make good use of charts to foster better understanding of the causal-effect relationship of historical events so as to consolidate students' learning.
- Students demonstrated satisfactory ability in presenting factual historical events, but their ability to analyse data and express comments on historical events needed to be enhanced. Most of the students found it hard to grasp the thrust of questions, present arguments and provide relevant evidence. As regards project learning, they were less competent in interpreting source data and constructing knowledge. Guidelines could be designed to help students conduct

project work and facilitate acquisition of a variety of historical skills.

• In more than half of the schools inspected, data-response and thought-provoking exercises designed to meet the needs of junior form students were inadequate. Besides, insufficient open-ended questions were set to test students' thinking skills in the junior secondary examination papers. Thus, effective assessment on students' thinking and presentation skills could not be carried out.

#### Priorities for Action

- Teachers could place more emphasis on teaching review and formulate concrete assessment plans of the subject so as to improve the quality of teaching. There should be more frequent sharing of teaching experiences and professional dialogue so as to gain a full grasp of the current curriculum development and to enhance the effectiveness of learning and teaching.
- In developing students' learning abilities, teachers were advised to pay attention to students' knowledge base for the junior secondary level, particularly in enhancing their critical thinking as well as study skills. Guidance should also be given to students to better utilise the library and web-based resources to acquire and construct knowledge on their own, and develop in them self-learning skills.
- Collaboration with other subject departments and clubs should be strengthened. The subject department should make better use of the resources in schools in planning and implementing learning activities, so as to provide students with opportunities in life-wide learning.

# 3.20 History

### Key Strengths

Though differed in pace and priority, a majority of the schools positively engaged in the implementation of curriculum reform measures. In their curriculum planning, efforts to promote project learning and learning outside classroom were made explicit. Commendable efforts were made to arrange a good range of co-curricular activities to complement the formal curriculum and extend students' learning experiences.

- A majority of the subject departments set clear objectives and sufficient guidelines to support panel members. They had a clear commitment to promoting history learning by paying due regard to the school's priorities, the development of historical skills and latest curriculum trend.
- Project assignment was widely adopted at junior levels to promote self-learning and acquisition of historical skills. Procedural guidelines with clear objectives and appropriate strategies were also designed to help students conduct project learning. As shown in the projects, many students researched and organised historical sources and information well and demonstrated creativity in art design and adequate grasp of information technology (IT) skills.
- The quality of teaching was good in half of the schools inspected. A majority of lessons were well structured with good use of historical facts and daily examples to support explanation. Amongst the schools that sustained good teaching performance, teachers demonstrated sound subject expertise and embarked on building up historical knowledge base and enhancing historical skills since junior levels. Good teaching was also commensurate with suitable expectations upon students and apt recognition to enhance students' motivation.
- Students displayed a positive attitude to the study of history. More able students were well prepared for lessons and the quality of their response and oral presentation was good. They were confident in learning and able to demonstrate self-learning skills. Most senior form students were articulate in their written tasks. Their work was well organised and logically presented, showing adequate command of historical concepts and ability to draw evidence to support their judgement.
- Assessment was an area of strength in a majority of the schools.
   Assignment and assessment policy of these subject departments was clear with cogent guidelines. The quality of examination papers was good, with good spread of question types and appropriate level of difficulties to assess students' mastery of historical knowledge, skills and attitudes.
- Teaching resources were adequate and well categorised in terms of kind and quantity. Some departments made complimentary efforts in the procurement of IT-related resources and building up of a resource bank.

- The implementation of the programme plans and improvement strategies was not closely monitored. Panel members nominally worked quite independently. A collegial and collaborative approach to planning and implementation of strategies was rather underdeveloped.
- Ongoing and annual evaluation left much room for improvement in more than half of the departments. Evaluation was not integral with explicit performance criteria and formulation of concrete strategies to improve the departmental portfolios of work.
- As regards project-based learning, work in collaboration with other subject departments was only at its inception and needed to be further developed.
- In view of teachers' good IT proficiency, the pace of promoting IT in learning and teaching as well as using IT to facilitate sharing of good practices and resources should be quickened.
- Students were generally passive and rather sedentary in class. They relied upon teacher's instructions and seldom took the initiative to raise questions. In their responses, senior form students in more than half of the schools were less capable of getting to the thrust of questions, making comparisons, differentiating concepts and making judgements. There was room for improvement in classroom interaction in promoting students' mastery of knowledge and developing skills for in-depth historical understanding and interpretation.
- The inclusion of historical data in learning and teaching and to develop students' data analysis skills was not adequate in more than half of the schools. Students in these schools were less competent in doing data-interpreting tasks.
- The quality of marking junior form assignments could be improved by providing clear and constructive feedback as well as placing greater emphasis on doing follow-up tasks. Also, the outcomes of assessment analysis were not well employed to formulate strategies to enhance learning and teaching.

- Monitoring of panel work should be strengthened to ensure consistency and sustainability of practice. More professional sharing and collaboration in the panel was required to cope effectively with the onslaught of new curriculum initiatives. Efforts to collaborate with other subject departments in promoting project learning, reading to learn and learning outside classroom should be made to enrich history learning and students' learning experiences.
- Programme plans should be integral with evaluation criteria to provide apt and structured self-evaluation.
- Students should be more inquiring in class to reinforce their understanding. More opportunities for interaction and challenging tasks could be given to enhance students' input in the course of lesson delivery.
- More training in essay writing skills should be given at junior level to equip students with the relevant skills for study at senior level. In general, students should assume a more proactive learning style. They should embark on reading more extensively to gain more historical knowledge and broaden their exposure.

# 3.21 Economic and Public Affairs

- More than half of the schools organised adequate subject-related activities including visits, board displays, news quizzes, etc., to complement the formal curriculum. There was also a growing awareness of the importance of life-wide learning. About half of the schools attempted to extend students' learning experiences beyond the confines of the classroom in authentic contexts, in or outside Hong Kong. One school successfully integrated activities with project learning as well.
- The attitude of the teachers towards teaching was serious in a majority of the schools. Some of them provided students with up-dated information to supplement the textbook.

- In the schools inspected, students were able to apply IT skills including word processing, web-browsing and presentation skills in their project work. The comprehension ability of the students was found to be satisfactory in most of the schools.
- Most of the schools required students to do projects. Instead of assessing the project output per se, there was a growing awareness of the schools to value the process of doing projects. Some projects were also complemented by student presentation in class.
- In more than half of the schools, the assessment papers included news analysis and data response questions to assess students' social awareness and various skills as required in the curriculum.

- In more than half of the schools, no concrete measures were taken to evaluate the effectiveness of the different aspects of work in relation to objectives set, nor were there criteria set for evaluation. The value of evaluation to provide an informed basis for improving the subject curriculum and pedagogy so as to enhance the effectiveness of student learning was not duly recognised.
- Almost all the schools had not effectively implemented the issue-based teaching approach suggested in the CDC Syllabus. In half of the schools, curriculum planning was bound by the intention to cover all the textbook contents or too many optional topics. Teaching plans mainly focused on teaching contents and teaching strategies and resources were not often seriously considered. There was insufficient attention paid to the development of various generic skills. Opportunities to let students construct knowledge on their own were also inadequate.
- Apart from aligning teaching contents for examination purpose, panel members often lacked a shared vision of what they aimed to achieve through the implementation of the curriculum. They seldom had a consensus on appropriate learning and teaching strategies, as well as assignments to help develop students' thinking and learning skills. In a majority of the schools, the panel head needed to strengthen his curriculum leadership and assume a more proactive role in curriculum planning. In particular, collaboration and professional exchanges among panel members in resource development, formulation of teaching strategies and organising activities needed to be enhanced.

- In a majority of the schools, there were insufficient varieties of teaching strategies in the lessons observed. In about half of the schools, teachers' expectations of the students were low and they put emphasis on either imparting of textbook knowledge or drilling of vocabularies. The extent of teacher-student interaction and peer collaboration in class was inadequate.
- In most of the schools, students were attentive in class. However, they had not mastered a wide range of learning strategies and were passive in learning. Teachers needed to provide suitable learning activities to help students develop their study skills and self-learning ability. Students' ability to analyse data and their critical thinking had to be improved. Social awareness of the students also needed to be enhanced.
- In more than half of the schools, there was a need to improve the quality of assignments. Undue emphasis was given to workbook completion and drilling of vocabularies, and the quality of worksheets copied from commercial workbooks was barely satisfactory. Assignments designed for the development of different skills, cultivation of positive attitudes and social awareness in students were inadequate. Teachers could give more guidelines on the learning process when assigning project work to students.
- In a majority of the schools, teachers' marking of assignments, projects in particular, needed improvement. More specific and positive feedback on the different aspects of performance including the skills demonstrated would help students improve and reinforce learning.
- In most of the schools, examination questions were mainly set on factual knowledge. Post-examination reviews conducted in most of the schools were too general with focus on passing percentages. There was no thorough evaluation of students' performance. Seldom were there concrete follow-up plans to improve the curriculum planning and learning and teaching strategies.
- The quantity and variety of library books were inadequate in more than half of the schools and students had not made good use of the library resources to pursue self-learning in most of the schools inspected.

#### Priorities for Action

- A wider range of teaching strategies, including the use of multi-media resources, audio-visual aids and group discussion on current news, etc., should be adopted to facilitate not only students' learning of knowledge in a more lively and interactive learning environment, but also the cultivation of different skills. Higher priority should be attached to the development of students' social awareness and self-learning capabilities.
- Issue-based teaching could be integrated with project learning to help develop students' various study skills and generic skills. More guidance on the process of doing projects such as delineating a topic worth working on, collecting data, analysing and organising data for systematic presentation etc., should be given.
- Apart from administrative duties, the panel head should assume a
  more proactive leadership role in resource development, exploration
  of learning and teaching strategies, the design of assignments and
  organising co-curricular activities. There should be more professional
  exchanges through internal sharing sessions and peer lesson
  observations.

# 3.22 Economics

- More schools had attempted to incorporate information technology (IT) in teaching and resource development. Subject homepage was created by some schools for uploading relevant course materials for students' reference.
- Most of the teachers were subject trained and experienced. A good rapport between the teacher and the students was established. Their teaching attitude was serious and exposition of concepts was clear. Daily examples were aptly used for illustration of economic concepts, particularly in S4-5 lessons.
- In most of the schools, the frequency of internal examinations was appropriate. Assessment papers generally followed the public examination requirements in terms of format, scope and depth.

Marking schemes were clear and detailed. Assessment papers were of satisfactory quality with a fair distribution between knowledge-type and application-type questions. Some teachers had made good use of current economic affairs in setting questions.

• Students were attentive and serious towards studies in a majority of the schools. They completed assignments conscientiously as instructed.

- In most of the schools, concerns for curriculum reform were not addressed in panel discussion. Panel meetings with focus on reporting teaching progress and reviewing examination results could not serve as effective avenues for professional exchange. Members of the Economics panel basically worked on their own and lacked sharing on the latest developments in the subject curriculum and pedagogy. Collaboration among panel members should also be encouraged.
- The importance of evaluation to provide useful feedback on learning and teaching effectiveness was not given due recognition. While a small number of the schools had no review mechanism in place, the subject evaluation of most of the schools focused on students' internal and public examination performance. Specific measures were seldom devised to address students' weaknesses diagnosed in the assessment process. Neither were there concrete measures with evaluation criteria, to evaluate the effectiveness of the different aspects of work in relation to objectives set. There was also a lack of thorough reflection on how to design teaching strategies and assignments specific to the needs of the students.
- The existing curriculum planning paid due attention to the knowledge domain required by public examinations. Yet, inadequate attention was paid to extending students' learning capabilities more systematically by means of a wider range of teaching strategies in class and in assignments. Though peer lesson observation was put in place in more than half of the schools, this mechanism was mainly used for appraisal purpose instead of refinement and exploration of teaching strategies to enhance learning effectiveness.
- In most of the schools, teaching strategy was teacher-centred. Learning activities and assignments were geared towards drilling students for public examinations. They were of a limited variety to

cater for students' diverse needs and abilities. Teacher-student interaction and peer collaboration in class were inadequate. This was particularly evident in S6-S7 classes. Besides, teachers' expectations of students were often not congruent with students' potentials and abilities. While teacher's over-guidance was, more often than not, an obstacle to developing students' analytical thinking and self-learning ability in schools with above average student in-take, lack of suitable adaptation of learning materials for less able students simply stifled their interest and undermined their confidence in learning.

- Students were passive in their studies and lacked an array of learning strategies. Utilisation of the library resources was found to be low in more than half of the schools. Teachers needed to encourage students to take greater initiative to pursue self-learning by making full use of library and Internet resources. As regards learning progress, students were found to be relatively weak in the ability to apply economic concepts in analysis. Their critical thinking and problem solving skills had yet to be enhanced.
- The value of assignments to help students consolidate their learning and to develop their skills was not given due recognition. In about half of the schools, assignments were lacking in variety with emphasis on drilling past examination questions. The frequency of assignments was low in one-third of the schools. Marking of the teachers needed improvement in more than half of the schools. Teachers prepared model answers for students' reference in one-quarter of the schools. Such practice had to be reviewed seriously as this would encourage rote learning. In fact, the importance of giving specific and positive feedback on students' work so as to help students improve and reinforce learning should take precedence over rating students' performance.

# Priorities for Action

• Learning is mainly geared to preparing students for public examinations. Students should be given more chances to acquire an array of learning strategies so as to develop their ability and skills in self-learning by making full use of library and Internet resources. The importance of reading as a learning strategy crucial to the development of study skills and enrichment of students' knowledge beyond the bounds of textbooks should be accorded greater recognition. Higher priority should also be attached to the development of students' skills in application of economic concepts in

- authentic situations and analytical thinking through a wider variety of assignments and activities in class.
- Teachers should adopt a wider range of teaching strategies and refine their teaching skills, questioning skills, in particular, to cater for the varied abilities of the students. Teacher-student and peer interaction should be enhanced.
- The value of assignments to help students consolidate learning and to develop their skills should be accorded higher importance. Constructive feedback on the specific strengths and weaknesses of students should be given to help students make continuous improvements.

# 3.23

# Geography

- More than half of the schools had drawn up subject-based year plans and adapted the curriculum in response to the recent developments in the subject discipline and education reforms. Most of the teaching plans and teaching contents of the junior secondary level were carefully set with due efforts to strike a balance in the study of local, national and global problems and issues. The plans were found to be coherent in helping students construct their own knowledge, acquire experiences and make judgement in a progressive manner.
- Most of the teachers inspected were subject-trained. Teachers exhibited a good mastery of subject knowledge and geographical enquiry. Most of the lessons were systematically organised with clear objectives and good preparation.
- The adoption of Chinese as the medium of instruction in teaching junior secondary Geography significantly improved the learning atmosphere, class interaction and learning outcomes, especially for the enquiry of "issue-based topics". In the schools inspected, students were more confident and competent to express their own ideas; were more ready to show concern for people and environmental quality of other places, and to appreciate the lifestyles and culture of others from different perspectives. In general, students' performance in the study of the value-laden topics was found to be satisfactory.

- Students were generally well behaved and attentive in class. They were capable of following teachers' instructions and performed the tasks assigned satisfactorily.
- In more than half of the schools inspected, students gradually treated the use of information technology (IT) as an integral part of their learning. Through the World-Wide Web, students became more open in the search and acquisition of geographical knowledge, and they were able to apply IT skills to produce information-rich projects and make presentations in class.
- Most examination papers for senior levels were well set with clear instructions, and the proof reading mechanism was effective in assuring the quality of the papers. A variety of resources such as maps, statistical data and graphs were incorporated to gauge students' geographic competency. Other than end-of-course evaluations, continuous assessment through coursework assignments, projects or fieldwork was commonly adopted to keep track of students' learning.

- Varieties of subject-related co-curricular activities were inadequate in the majority of the schools inspected, and the participation rate was not satisfactory. Fieldwork which was the cornerstone of geographical investigation and crucial to the understanding of man-land relationship was not given due emphasis.
- In about half of the schools inspected, class teaching strategies in senior forms in particular lacked variety. Teachers in general were not familiar with the skills of group learning to help students acquire and construct geographical knowledge and concepts in a purposeful manner. Effort and attention given to cater for students' varied needs and abilities were insufficient. And opportunities for students to learn from each other were inadequate.
- Students, especially those in senior forms, were not active enough to respond to high-order questions in class. They seldom took the initiative to ask questions or clarify problems. They were neither critical nor creative.
- In more than half of the schools inspected, there was a need to improve students' answering techniques. Students' answers to

questions, especially those of the senior secondary level, which demanded enquiry and creativity, appeared to be almost identical. Besides, many students had difficulties in mastering relationships of "globalisation", "information technology" and "spatial change". This demonstrated a lack of awareness and knowledge about contemporary issues, and textbook-bound learning had hampered their geographic competency. Furthermore, inability to stick to the question asked, wrong spelling and misuse of geographical terms were still common problems exhibited by many students.

- There were inadequate data-response questions in junior secondary examination papers to assess students' data-handling skills.
- Effort made to develop, manage and top up teaching resources related to Geography was inadequate. The utilisation of available resources, including digital software and hardware, to enhance the learning and teaching of the subject was not satisfactory. In some schools, the Geography room had been converted for other uses, which adversely affected teaching and subject-related activities.

- Team effort in raising the quality of learning and teaching of the subject can be further strengthened, especially in the pursuit of better performance in the senior forms in the schools concerned. Students' passivity, textbook-bound teaching and ineffective group learning are areas of concerns where panel members can work more closely to make further improvements.
- The role of the panel head can become more explicit as a leader and a manager so as to ensure consistency of practice and delivery of the subject-related policies and quality curriculum. The practice of peer lesson observation to enhance professional sharing and the adoption of digital resources in teaching can be more widely promoted.
- Schools can step up efforts to promote reading to learn as an important and integral part of the subject foci in developing students' generic skills and in raising their awareness on contemporary issues.

# 3.24 Social Studies

- Panel chairpersons were more aware of their roles as leaders and managers. Importance was placed on focused discussion and sharing of teaching experiences in panel meetings. Active exchange of ideas heading for subject development and improvement was evident. All schools inspected had prepared comprehensive annual plans. More than half of the schools closely monitored the implementation plans and areas of concerns were duly reported. Most of the remedies suggested were practical and realistic.
- More than half of the schools inspected were very successful in devising and implementing school-based curriculum. They managed to adapt the central curriculum by duly trimming outdated contents and integrating new topics, such as media education and thinking skills modules, to suit the needs of individual schools. Most schools made efforts to enhance students' generic skills, especially in the acquisition and use of first-hand information. The schools had wisely made use of the time available to help students acquire the basic concepts of and develop a positive attitude towards adolescent growth.
- Schools in general made good efforts in providing students with a good array of co-curricular activities to broaden students' exposure. A few schools were able to seek parental support to foster learning outside school hours.
- The medium of instruction (MOI) complied with the language policy in all of the schools inspected. Almost all teachers using English as MOI were able to communicate effectively with clarity and fluency.
- Most teachers prepared and conducted their lessons well. They were able to provide students with opportunities to express their concerns, feelings and empathy, which were highly desirable for learning social issues.
- The majority of the schools inspected had clear guidelines on assignments and assessments to help teachers oversee students' progress and enhance their learning. The majority of the students did

their assignments conscientiously, especially on project work, news commentaries and letters-to-editors. These assignments were able to foster students' inquiry learning.

# Areas for Improvement

- Less than half of the teachers assigned to teach the subject were non-subject-trained. They were weak in classroom strategies and work-task arrangements, which were crucial in the social enquiry. Most teachers were not skilful and open-minded enough to participate with students as equals in the inquiry processes. Teachers should exert sustained effort to update their knowledge and guide students to interpret information.
- Most teachers were not competent in the use of information technology to promote interactive learning. They were not adept at using the school intranet as an interactive platform.
- Students in general were not competent in interpreting and using the easily accessible survey data, and as a result, few managed to reach fair judgement and give quality responses in the social topic being discussed. Teachers should place greater emphasis on enhancing students' data processing and analysing skills, which were crucial to the promotion of project learning and the cultivation of generic skills.
- In class learning, most students were weak in answering issue-based questions and they were unable to express their opinions with critical judgement. There was inadequate constructive feedback from teachers to help students improve.
- A few schools were heavily dependent on summative assessment to gauge students' progress. Some test and examination questions were not objective enough, and answers of some questions were found to be too rigid. Such practices could not develop students' enquiry skills to explore issues from different perspectives.

#### Priorities for Action

 Peer lesson observation, collaboration and professional sharing in schools should be promoted. Teachers, especially the non-subject-trained, should make good use of these opportunities to enhance their teaching skills so that they could effectively help students improve their learning.

- Teachers should also make use of issue-based teaching approach to help students interpret data, and to encourage them to reflect more often on social issues. Students could be provided with more opportunities to participate in work tasks in class and to construct knowledge from enquiry of social issues. To further enhance students' confidence in learning, teachers should frequently give feedback. The less able learners, in particular, needed more positive and prompt encouragement. Teachers should also make good use of information technology to facilitate interactive learning.
- A broader range of assessment strategies could be adopted. Schools should widely promote continuous assessment to evaluate student progress in various skills and attitudes. Clear assessment criteria have to be developed. Instead of stressing the notion of a correct answer, due recognition should be given to students' efforts in providing duly argued and justified alternatives as answers.

# 3.25 Art and Design

- Almost all the teachers were subject and professionally trained. More than half of the schools were considered to be good in class teaching. Lessons were systematically organised with clear objectives and good preparation. A good rapport between the teacher and the students was established. Most of the teachers had used IT to enhance the quality of learning and teaching.
- Most of the students were well disciplined, cooperative and attentive. They were willing to participate in learning activities. They could follow instructions closely in completing their tasks and showed interest in crafts and three-dimensional artwork. Given opportunities, students were able to present ideas logically and fluently. Good cooperation was observed among students during activities. In art learning, some of the students were able to make good use of information from the library and the Internet to enhance learning.
- Most of the schools supported art education through adequate provision of funds as well as teaching and learning resources. Most of the teachers made good use of the funds to improve facilities to

support effective learning and teaching. Teaching resources were well maintained and managed for easy access. In more than half of the schools, adequate IT facilities were provided to help enhance the quality of learning and teaching. Teachers of individual schools had acquired external resources, such as Quality Education Fund and Art Development Council resources, to organise art activities.

• More than half of the schools made good use of space available for displaying students' artwork or mural paintings, which helped beautify the campus, enhance students' art appreciation ability and promote the artistic atmosphere in schools.

- The aims in more than half of the Art and Design programme plans were too broad and lacked success criteria for evaluation. There were no concrete measures suggested for improvement.
- Panel chairpersons in a few schools did not fulfill their roles in curriculum planning, monitoring, providing support to panel members, and evaluating the panel's performance regularly. Teachers in a few schools tended to focus on individual work with insufficient sharing and collaboration in the panel.
- In most of the schools inspected, insufficient attention was paid to continuity of learning across different levels while planning the art curriculum. The curriculum of senior forms put too much emphasis on public examination preparation and exposure to various media of art making was inadequate.
- Most of the class teaching was mainly on imparting knowledge. Class teaching was teacher-centred and emphasis was placed on delivery of the subject matter. Learning activities for developing students' confidence, communication skills and self-learning abilities were limited in variety. Most teachers needed to improve their questioning techniques in order to stimulate students' higher-order thinking skills.
- Students were passive and lacked confidence. They also lacked the opportunity to take part in free discussions and learn in an interactive manner. As revealed from the assignments scrutinised, students' visualisation abilities, such as drawing, painting and design, were weak. Some of the assignment work was limited in variety and students' training lacked flexibility. In doing design assignments,

students tended to use collage as the technique, which had hindered them from enhancing their visualisation ability. Most of the students could not effectively employ different resources, like the library and the Internet, to enrich their learning and extend their learning experiences beyond the classroom.

• The overall performance of the project learning was varied. High level generic skills, such as problem-solving and critical thinking, were seldom shown in projects; while most students were engaging in data collection and organisation work.

- Overall curriculum planning and management of Art and Design need improvement. Apart from taking charge of the administrative aspect of panel work, department heads need to assume the role of a curriculum leader to spearhead curriculum innovations and oversee the vertical co-ordination of curriculum work. Most schools need to strengthen professional exchanges among art teachers. Teachers should be encouraged to discuss more frequently teaching strategies and new trends in teaching as well as in curriculum development. Teachers need to enhance self-evaluation and conduct more peer lesson observations. They should also take students' views into account so as to improve the quality of learning and teaching.
- Schools need to strengthen the co-ordination and planning of Art and Design curriculum across all levels and to devise plans to consolidate and systematically improve students' art foundation. Activities and assignments should be systematically arranged to progressively develop students' different artistic skills and to enhance their ability in art creation. Training in observational drawing should be more diversified and conducted in a more relaxed way in order to raise students' learning interest. Media art such as computer graphics, animation and video art can be introduced to further stimulate students' creativity.
- Teachers should strengthen their roles as learning facilitators with a view to enhancing students' active learning and confidence. Students should be allowed to learn from activities, so as to develop in them the ability to learn independently and learn through exploration. More learning activities both inside and outside the campus such as outdoor drawing should be conducted to improve students' observation power and broaden their horizons. Teachers' questioning

techniques should be improved. Teachers could pose higher-order questions depending on students' abilities to stimulate their thinking skills. More learning activities should be planned by teachers to promote students' use of resources in the school library.

- For enhancing the effectiveness of promoting project learning, the school should provide adequate training on project learning for teachers and students. Strategic learning activities should be planned for developing junior students' generic skills and enabling senior students to adopt different modes of learning. In order to raise students' interest and motivation, the topic of project learning could be initiated by the students rather than assigned by teachers.
- The streaming system at senior secondary forms should be improved to enable more students who are interested in or have potential for Art and Design to continue the study.



#### Music

- Most of the schools encouraged students to attend concerts and talks
  presented by arts organisations, and a small number of schools
  invited professional orchestras to perform to the students, which
  helped arouse their interest in music.
- Schools offered a good variety of extra-curricular music activities, including Chinese and Western instrumental classes, choirs, inter-class music contests, music camps and music marathons. In a small number of schools, external resources were used to organise Cantonese operatic singing classes and marching bands training. Schools provided students with the opportunities to develop their musical potential.
- Most of the teachers were experienced with good musicianship. Individual teachers were worthy of praise for introducing IT into the teaching of music, for example, using Powerpoint for systematic arrangement of listening materials, demonstrating creative activities with the aid of music software, guiding students in downloading trial versions of music software to complete tasks, and encouraging them to hand in homework by e-mail.

Most of the schools were supportive of the development of the subject
as revealed by the provision of air-conditioned music rooms to create
a better learning environment. Teaching resources were adequate.
Music rooms were well-equipped with standard audio-visual facilities
as well as computers and peripheral devices to promote the use of IT
in the teaching of music.

- Two of the schools inspected entered a few students for the HKCE Examination in music in 2001. Students were prepared for the Examination through the Centralised Scheme of Music Training for Senior Secondary Students organised by the Education Department. The schools relied heavily on the Scheme. Instead, schools should make full use of their resources, so that these examination classes could be offered at their own schools. General music curriculum focused on singing and listening. Teachers should, in view of the resources available in their schools and the learning experiences of their students, strategically incorporate the use of IT in learning and teaching in the formal curriculum, so as to provide additional media for music learning and to broaden the scope for creativity.
- Class teaching was mainly teacher-oriented. Students tended to participate in learning activities passively under teachers' instructions. In order to enhance the effectiveness of learning and teaching, teachers should provide students with the opportunity to engage in interactive learning. Regarding singing, teachers should have higher expectations of students. As to listening, more examples should be used to give students better ideas on how to express their feelings and views in musical language.
- Some students were rather passive and lacked confidence in learning.
   For example, their learning of instruments remained at the cognitive level. In creative activities and activities arousing their imagination, students were afraid of giving incorrect answers and thus often failed to share their ideas with other classmates.
- Teachers should increase the use of formative assessment so as to evaluate students' learning more effectively and to improve teaching plans and pedagogy continuously. Written examinations should avoid questions on rote memorisation of repertoire, knowledge of instruments and music theory. Teachers could set questions involving comprehension, composing and imagination to enhance students'

thinking skills and creativity.

• Library books on music were inadequate, but those available were of the appropriate level and quality. Students did not have a habit of making good use of the books available. Some schools recently started to purchase CDs and self-learning software to arouse students' interest in music. Teachers should optimise these resources strategically and devise learning projects so as to foster self learning.

#### Priorities for Action

- In respect of class teaching and learning, a student-centred approach should be used to develop students' imagination, abilities of appreciation and communication through participation in various kinds of music activities such as improvisation of sound project, lyrics and critical listening.
- Teachers should, in view of school resources and students' interests and abilities, incorporate strategically the use of IT in learning and teaching into the formal curriculum, so as to provide various media for interactive learning, to promote students' interest in music learning and to broaden their scope for creativity.

# 3.27 Physical Education

- Panel heads and teachers cooperated well. Their job descriptions were clearly defined. Most of the schools were aware of the trend in curriculum development, thus a greater variety of topics was selected for teaching. For instance, the inclusion of sports, such as golf, hockey, Taichi, tennis and softball in senior levels, and the introduction of shuttlecock and rope skipping to junior levels, helped nurture students' interests and potentials. More than half of the schools incorporated training and assessment of physical fitness into the curriculum.
- Nearly all schools supplemented the curriculum with suitable extra-curricular activities. Most schools organised activities and training leading to the inter-school competitions. Many schools also organised a sufficient variety of activities such as interest groups,

training camps and games days to cater for the needs of most students. By inviting students' active participation, schools tried to instil in students a sense of leadership, discipline, self-confidence and responsibility, hereby fostering their all-round development.

- Teachers' teaching attitude and subject knowledge were satisfactory. Almost all teachers had good preparation and their teaching steps were systematically presented. Their presentation skills were good and demonstrations were clear. Teachers were dedicated and sincere. They were able to maintain a harmonious relationship with students. Nearly all teachers were adequately aware of the safety measures during teaching.
- Students were attentive and showed interests in sports activities. Most
  of them followed teachers' instructions to practise seriously, and their
  learning progress was satisfactory. Students' discipline was good and
  they cooperated with each other enthusiastically in group activities.
  Most of them reached satisfactory standards in sports skills, fitness
  and sports knowledge.
- Most schools designed a clear assessment system with adequate coverage and frequency that could effectively reflect students' performance in physical fitness, sports skills, attitude and knowledge. More than half of the schools could keep track of students' performance in extra-curricular activities and considered it as one of the assessment areas. A few schools assessed students' PE knowledge through project work.
- Most schools could make good use of their sports facilities. There was an adequate stock of equipment and regular replenishment was made to support teaching. More than half of the schools proactively acquired external support such as community facilities, funding schemes and promotional activities offered by sports organisations. Some schools encouraged non-PE teachers to take charge of sports activities, which could provide students with more opportunities for participation and cultivate a sports culture in schools.

#### Areas for Improvement

 Some schools lacked strategic planning for the subject. Teachers did not set up clear objectives, implementation strategies, work plans and evaluation mechanism in accordance with the school's development. Most schools did not take serious consideration of the continuity of

- activities across levels in the teaching programme. Development of skills in each module was not clearly specified. Curriculum monitoring on the whole was inadequate.
- The teaching approach was too teacher-centred and lacking in opportunities for teacher-student interaction. Seldom were opportunities provided to develop students' creativity, teamwork, leadership and communication skills in class. Besides, some of the teaching contents could not meet student's abilities and interests. The design of activities lacked variety. Insufficient opportunities for activity and low intensity of work would lead to a poor learning outcome. Students were passive in learning. Unsatisfactory performance in fitness and sports skills by some of the female students was observed.
- The importance of assessment for providing an informed basis to improve curriculum planning and teaching strategies had not been given due attention. Moreover, feedback to students was not adequate to improve and reinforce effective learning.

- Most of the panel heads focus mainly on administrative and coordination work. Their roles should become more explicit as a leader to enhance the continuous improvement of the subject. They should set up development plans with clear objectives with consideration to school's situation. In addition, the year-end evaluation should be more in-depth, with focus on assessing the effectiveness of the work plan. Improvement measures on specific work items should be provided in the follow-up plan.
- Professional development for teachers should be further strengthened. Besides attending seminars and training courses organised by external bodies, peer lesson observation and sharing can be pursued to promote a professional dialogue between teachers. Teachers should keep abreast of the current trend of Curriculum Reform and take appropriate measures to develop student's generic skills and their initiative in learning. Furthermore, some teachers need to improve their skills and teaching methods for individual sports events.
- More diversified approaches in assessing students' performance were encouraged. Schools may consider strengthening the project learning approach in PE so as to develop students' interest in exploring sports knowledge.

 Schools should also make better use of IT for interactive learning, documentation, recording of students' performance and promotion of sports activities.

# 3.28 Business-related Subjects

(Business-related subjects include Business Fundamentals, Commerce, Office Practice, Retail Merchandising, Business Studies, Principles of Accounts and Typewriting.)

# Key Strengths

- Teachers were friendly, devoted and serious towards teaching. They were able to maintain a harmonious relationship with students and provide students with useful guidance on their class work. On the whole, lessons were well prepared. Teachers' presentation, instruction and demonstration were found to be clear and systematic. They could maintain proper classroom discipline. While some teachers made proper use of daily examples to illustrate the teaching content, some managed to apply information technology to the teaching of business subjects effectively. Furthermore, extra-curricular activities such as talks and contests were organised to promote students' interest and understanding of the business world.
- Most of the students were attentive and cooperative in lessons. They showed keen interest in their studies and were able to grasp the basic business knowledge and accounting skills. They completed their daily work conscientiously. Most students were capable of adopting information technology skills in their project work, some of which displayed good imagination.
- There was a clear evaluation system for the subject group. Both continuous and summative assessments were appropriately adopted. Frequency of assessments was found to be suitable.

#### Areas for Improvement

• Teaching was mainly teacher and examination-oriented. 'Lecturing' and 'question-and-answer' were the common teaching methods adopted. When explaining accounting treatments, emphasis was placed on making correct accounting entries rather than in-depth discussion of the underlying accounting principles and concepts.

- Students were passive and lacked confidence in their studies. They relied on teacher's instructions and teaching materials in learning the subject. They did not respond actively and critically to the questions posed by the teachers. When encountering problems in lessons, they seldom raised questions openly in class and engaged in any peer discussion, nor did they use library resources. Students' self-learning skills could be further developed.
- Evaluative mechanism had been functioning to regularly review the different aspects of work of the subject department. However, the evaluation mainly focused on student performance in examinations. The importance of evaluation to provide an avenue for reflecting on the subject curriculum and teaching strategies with an aim to improving teaching effectiveness had not been given proper attention.

- Strategic curriculum planning should emphasise the development of students' generic skills such as critical thinking skills, collaboration skills and problem solving skills. In consideration of students' needs and abilities, more varieties of learning activities could be designed to enhance classroom interactions. To further strengthen students' understanding of teaching content and their motivation to learn, teachers could make full use of current financial news items and daily examples to illustrate relevant business concepts. Moreover, they could pose more thought-provoking questions to develop students' problem-solving skills and stretch their thinking abilities.
- Teachers should raise their expectations of their students' learning progress and encourage them to strive for better performance. Students should exert more efforts on the development of self-learning skills such as preparing before lessons, consulting and using various sources of references, taking notes and doing class work independently. Accordingly, the variety of assignments should be enriched to include such assignments as project work, which could promote collaborative learning and strengthen self-learning skills.
- Teachers should make full use of the evaluation results to review thoroughly students' performance and the suitability of examination questions. Specific follow-up actions geared towards curriculum design and teaching methodologies should then be taken to help students overcome learning difficulties.

• To enhance teacher professionalism, there should be more frequent professional exchange and collaboration among teachers. Specific plans should be drawn up to facilitate implementation of peer lesson observation.

# 3.29 Technology-related Subjects

(Technology-related subjects include Design & Technology, Technology Fundamentals, Technological Studies, Graphical Communication.)

- Management of the subject department was good in most schools.
   Management and administration work were carried out smoothly.
   School workshops were well equipped to support learning and teaching needs as well as practical activities. For the precaution of accidents, safety posters in using hand tools and machinery were displayed in the workshops.
- All teachers inspected were professionally trained. They demonstrated good subject knowledge. Most of the teachers could explain clearly and guide students to learn with clear illustration. A good rapport between the teachers and students was established.
- In order to provide students with equal opportunity for learning, some of the schools inspected offered both Design and Technology and Home Economics to boys and girls, while other schools provided equal opportunity for boys and girls to select one of the two subjects. Most students were attentive in class and were able to complete their learning tasks in accordance with teachers' instructions. Students were well behaved in class, and class discipline was good.
- Most students showed great interest in learning the technology-related subjects. Students developed their various learning abilities mainly through design project work. Through the design process, students could manage the basic skills in data analysis, graphical communication and technological studies. Some students could make use of information technology in their designing and drafting work, and in completing their design folios.

#### Areas for Improvement

- Most of the teaching plans did not clearly spell out the key teaching points. The teaching contents lacked comprehensiveness and balance, and could not link up the design considerations, technological studies, assessment and evaluation with project activities.
- Teacher-student interaction was inadequate. Most of the teachers failed to make full use of questioning techniques to inspire students' thinking. Teachers' expectations of students were low. In the lessons inspected, interactive learning opportunities provided for students were inadequate.
- Students were passive and they lacked confidence in learning. They seldom took the initiative to ask questions or present their ideas. Besides, some of the students were not conscious enough of safety issues during workshop practices and did not observe safety regulations.
- Most of the teachers inspected mainly focused on assessing students' performance and did not conduct full review of their teaching plans. They did not make good use of the assessment information to review and adjust their teaching plans and strategies.

- Teachers should make full use of the assessment information for improving the quality of learning and teaching. They should review the comprehensiveness and balance of the teaching plans. Linkage among areas of studies should be strengthened so as to match with students' abilities, interests and needs.
- Teachers' expectations of students should be raised with a view to helping students develop their potential to the full. A range of learning and teaching strategies should be employed to enhance classroom interaction, and to help develop students' critical thinking abilities and creativity.
- Where appropriate, teachers should introduce the application of information technology in design, communication and production. This will enrich students' learning experience and enhance the learning and teaching of technology-related subjects.